Air Force Research Laboratory|AFRL

Science and Technology for Tomorrow's Air and Space Force

Success Story

DR. DAVID MOORHOUSE RECEIVES SENIOR SCIENTIST APPOINTMENT

In a ceremony officiated by Major General Nielsen, Dr. David Moorhouse was recently appointed senior scientist and named chief of the Multidisciplinary Technologies Center (MDTC). Dr. Moorhouse's previous position was senior research engineer at the MDTC. The center will greatly benefit from Dr. Moorhouse's extensive experience in vehicle design and system integration, which are major parts of the center's mission.

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Accomplishment

The MDTC is one of the Air Vehicles Directorate's centers of excellence. As chief of the MDTC, Dr. Moorhouse will lead the center in its mission to identify, develop, and improve critical, military-specific air vehicle technology design tools, methods, and processes to support innovative and affordable military aerospace vehicle development. The mission supports the Air Force by quickly identifying innovative, viable aerospace vehicle concepts.

Background

The MDTC's research covers five different areas. In all five areas, the focus is to exploit the synergistic interactions of multiple technologies to yield system benefits in support of innovative, fully integrated vehicles.

The first area, Efficient Design and Analysis Tools, is developing physics-based modeling tools and processes for design, analysis, and increased analytical certification of aerospace vehicles. Second, Uncertainty Quantification is developing rules and tools for understanding variability in system properties and the operating environment on air vehicle response. Third, Adaptive Structures is developing structural design with integration of mechanization and actuation for beneficial shape changes. Fourth, Energy-Based Method focuses on a multidisciplinary design framework for system-level optimization. The fifth area, A New Thrust, centers on flight experimentation to validate scientific methods with realistic data.

During his distinguished career, Dr. Moorhouse authored 65 journal articles, papers, and technical reports. His awards include the following: Dr. Courtland D. Perkins In-House Engineering Award, Directorate Engineer of the Year, Air Force High-Value Invention/Suggestion Award, Air Force Systems Command Science and Technology Achievement Award, Aviation Week and Space Technology Laurels Award, Fellow of the Royal Aeronautical Society, Associate Fellow of the American Institute for Aeronautics and Astronautics, Invited Member of the Aerospace Engineering School Advisory Council for Georgia Tech, and Invited Member of PhD Committee at Technical University of Delft, The Netherlands.

Additional information

To receive more information about this or other activities in the Air Force Research Laboratory, contact TECH CONNECT, AFRL/XPTC, (800) 203-6451 and you will be directed to the appropriate laboratory expert. (03-VA-03)